

CLAIMS

1. A pneumatic tire, comprising a pair of bead portions; a pair of sidewall portions extending outward from the bead portion in the tire's radial direction; a tread portion extending between the both sidewall portions; a carcass extending toroidally over the bead, sidewall and tread portions, the carcass having at least one ply formed by rubber-coating cords; and a main belt interposed between a crown portion of the carcass and the tread portion, the main belt having two belt layers formed by rubber-coating reinforcing elements extending slantly with respect to the tire's circumferential direction, characterized in that the belt layers constituting the main belt are so stacked that the reinforcing elements thereof extend slantly in the same direction with respect to the tire's circumferential direction.

2. The pneumatic tire according to claim 1, wherein a ply angle which is an angle of the cords constituting the ply with respect to the tire's circumferential direction is within a range from 45 degrees to 90 degrees as measured at the acute angle side.

3. The pneumatic tire according to claim 1 or 2, wherein the carcass has at least two plies stacked in a manner that the reinforcing elements thereof intersect one another.

4. The pneumatic tire according to any one of claims 1 to 3, wherein a belt angle which is an angle of the reinforcing element constituting the belt layer with respect to the tire's circumferential direction is within a range from 5 degrees to 85 degrees as measured at the acute angle side.

5. The pneumatic tire according to any one of claims 1 to 4, wherein the belt layers constituting the main belt have mutually different belt angles.

6. The pneumatic tire according to any one of claims 1 to 5, wherein an inner belt layer constituting an inner surface of the main belt has a larger belt angle than that of an outer belt layer constituting an outer surface of the main belt.

7. The pneumatic tire according to claim 6, wherein the belt angle of the inner belt layer is larger than the belt angle of the outer belt layer by 5 degrees to 30 degrees.

8. The pneumatic tire according to any one of claims 1 to 7, wherein the width of the inner belt layer is larger than the width of the outer belt layer.

9. The pneumatic tire according to claim 8, wherein the width of the outer belt layer is within a range from 50% to 90% of the width of the inner belt layer.

10. The pneumatic tire according to any one of claims 1 to 9, wherein at least one of the belt layers constituting the main belt is so provided that the width center point thereof is offset from the tire's equatorial plane in the tire's width direction.

11. The pneumatic tire according to claim 10, the offset belt layer has an offset distance within a range from 15% to 35% of the width of the offset belt layer.

12. The pneumatic tire according to claim 10 or 11, wherein, under the condition that the tire is equipped on a vehicle, the inner belt layer is so provided that its width center point is offset from the tire's equatorial plane to outside of the vehicle, and the outer belt layer is so provided that its width center portion is offset from the tire's equatorial plane to inside of the vehicle.

13. The pneumatic tire according to any one of claims 1 to 12, wherein the reinforcing elements constituting the belt layer are monofilaments.

14. The pneumatic tire according to claim 13, wherein the reinforcing elements constituting the belt layer are bundled cords formed by a plurality of monofilaments.

15. The pneumatic tire according to any one of claims 1 to 14, wherein an outermost ply constituting the outer surface of the carcass and the inner belt layer are so provided that the cords constituting the ply and the reinforcing element constituting the belt layer extend slantly in the same direction with respect to the tire's circumferential direction.

16. The pneumatic tire according to any one of claims 1 to 15, wherein at least one auxiliary belt is provided on the outer surface of the main belt over a region substantially covering the main belt, the auxiliary belt being formed by helically winding a cord to arrange the wound portions generally parallel to the tire's circumferential direction and then rubber-coating the cord.

17. A method of installing a pneumatic tire according to any one of claims 1 to 16 on a vehicle, wherein all of the tires is so installed on the vehicle that an extension line drawn from the reinforcing element of the belt layer constituting the main belt in the vehicle's traveling direction intersects with the width center

line of the vehicle.

18. A method of installing a pneumatic tire according to any one of claims 1 to 16 on a vehicle, all of the tires is so installed on the vehicle that reinforcing elements of the belt layer constituting the main belt extend slantly in the same
- 5 direction.